



engineering and constructing a better tomorrow

June 10, 2011

Mr. Christopher O'Neill, P.E.  
New York State Department of Environmental Conservation  
Office of Environmental Quality, Region 4  
1130 North Westcott Road  
Schenectady, New York 12306-2014

**Subject: Vapor Intrusion Investigation Report**  
**Spill #99909741**  
**Former Furon Site**  
**14 McCaffrey Street**  
**Hoosick Falls, New York**

Dear Mr. O'Neill,

Mactec Engineering and Consulting, Inc. (Mactec) has prepared this Vapor Intrusion Investigation Report (VI Report) on behalf of our client, Honeywell International Inc. (Honeywell), to document the results of vapor intrusion sampling completed in January 2011 at the referenced location. The work was completed as outlined in the Additional Vapor Intrusion Work Plan dated November 2, 2010 and as described below.

## **SITE DESCRIPTION**

Allied Signal (a Honeywell predecessor) sold the referenced facility to Furon Company in February 1996. Saint-Gobain Corporation (Saint-Gobain) acquired the facility from Furon in December 1999. Saint-Gobain currently owns and operates the manufacturing facility.

The McCaffrey Street site is an active plastics manufacturing facility which consists of an L-shaped series of interconnected buildings located in the approximate center of the property, surrounded by asphalt parking lots and driveways. The perimeter of the property is grass-covered. Saint-Gobain reports that a small basement is located on the northwestern side of the facility. There are no other basement or subgrade areas associated with the facility buildings.

## **SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIATION ACTIVITIES**

A Phase II ESA was completed for the McCaffrey Street facility in 1996 by Parsons. The results of the Phase II ESA were documented in a Parsons report dated May 1996. As part of the Phase II

investigation, five shallow monitoring wells (MW-1M through MW-5M) were installed on the property. Groundwater samples were collected from the wells for laboratory analyses. Concentrations of trichloroethene (TCE) were identified in wells MW-2M (16 ug/L) and MW-5M (7 ug/L), which exceeded the New York State (NYS) Class GA groundwater standard of 5 ug/L. Well MW-2M was located on the eastern property boundary and well MW-5M was located on the south-central portion of the site adjacent to a former sump or pit area.

In November of 1999, groundwater samples were again collected from wells MW-2M and MW-5M and analyzed for volatile organic compounds (VOCs). The analytical results identified the presence of TCE and cis-1,2-dichloroethene. However, only the reported TCE concentrations (17 ug/L in the sample collected from MW-2M and 10 ug/L in the MW-5M sample) exceeded the NYS Class GA groundwater standard of 5 ug/L.

In October of 2000, additional groundwater samples were collected by Parsons from wells MW-2M and MW-5M and analyzed for VOCs. The results identified concentrations of TCE (12 ug/L in the MW-2M sample and 7.5 ug/L in the MW-5M sample) that were lower than the November 1999 results but which still exceeded the Class GA standard of 5 ug/L. Based on these results, Parsons concluded that no further action was necessary.

In a response to the 2006 letter issued to Saint-Gobain from the NYSDEC requesting the evaluation of VI potential at the former Furon facility, Mactec investigated conditions at the McCaffrey Street Site. In 2009, NYSDEC issued a letter directing that vapor intrusion (VI) investigation work was required for the facility in order to evaluate the VI pathway in accordance NY state guidance. Mactec, on behalf of Honeywell, issued an SVI and groundwater sampling plan dated November 4, 2009 that was reviewed and approved by NYSDEC.

Two groundwater samples were collected from the McCaffrey Street site in December 2009. TCE concentrations from 2009 groundwater sampling were comparable to historic results in MW-2M (12 ug/L) and MW-5M (4.6 ug/L), but still exceeded the Class GA standard of 5 ug/L in MW-2M.

VI sampling was conducted at the facility on January 20, 2010 (during the 2009/2010 winter heating season). The results of the January 2010 VI sampling event were presented to NYSDEC in a Mactec letter report dated June 30, 2010. Several VOCs were detected in the sub-slab soil vapor and indoor air samples. Based on the product inventory and interviews with Site personnel, as well as comparison of

sub-slab vapor concentrations to indoor air concentrations, most of the VOCs detected within the facility were likely attributed to stored material, current material usage, manufacturing processes, or other sources (such as items associated with contractors or employees). TCE, the primary chemical of concern, was detected in sub-slab soil vapor at a maximum concentration of  $110 \mu\text{g}/\text{M}^3$  (SS-03). Indoor air concentrations were less than the NYSDOH indoor air guidance value for TCE, which is based on a residential exposure scenario, of  $5 \mu\text{g}/\text{m}^3$ . By comparison, the EPA Regional Screening Level, which is a guidance value set at  $10^{-6}$  risk and hazard index of 1, is  $6.2 \mu\text{g}/\text{m}^3$  for industrial facilities.

Based on the results of the 2010 SVI investigation, NYSDEC issued a letter to Mactec dated September 15, 2010, that requested the collection of additional VI samples to “determine whether indoor air concentrations of TCE change over time or mitigation of the building is necessary to eliminate potential exposures to TCE in air”. The NYSDEC letter recommended that additional subslab and indoor air samples be collected from the same locations sampled in January 2010. NYSDEC also recommended that samples be collected from the shipping and main production areas, with samples located adjacent to floor drains in those locations. NYSDEC requested that the subslab sampling points be installed as permanent soil vapor probes so that additional samples can be collected, if necessary. In response to the NYSDEC comments, Mactec prepared an Additional Vapor Intrusion Work Plan, dated November 2, 2010. This report documents the results of implementation of the November 2010 Work Plan.

## **SCOPE OF WORK**

The following sections describe the scope of work associated with the January 2011 VI sampling event completed at the McCaffrey Street facility.

### **Site Inspection**

Mactec visited the Liberty Street site on January 25, 2011 and met with Saint-Gobain representative Mr. PJ Beaumont (Maintenance and Facility Engineering Manager) to gather additional information regarding site conditions, building subsurface utilities, and further evaluate the facility floor drain system. Also in attendance were Mr. Chris O'Neill (NYSDEC) and Mr. Albert DeMarco (NYSDOH). During the site inspection, proposed locations for the permanent sub-slab sampling points and indoor air samples were identified and reviewed with NYSDEC and NYSDOH for approval. Sample locations focused on areas with the greatest potential for VI exposure based on available information.

During the site inspection, Mactec completed a brief indoor chemical inspection of the building. Based on discussions with the NYSDOH and NYSDEC, it was determined that the full chemical inventory and photoionization detector (PID) survey would be conducted at the time of sampling. In addition, the NYSDEC and the NYSDOH representatives stated that the chemical inventory should be conducted in each room where the samples were being collected, and in the immediate vicinity of the rooms to be sampled, but the inspection did not need to include the entire facility due to the facility size and the confined areas to be sampled. Chemical inventory information is provided on the Indoor Air Quality and Building Inventory form provided in Attachment A. Mactec also further interviewed Saint-Gobain representatives to collect information regarding past and present chemical usage at the facility. Although Saint-Gobain representatives stated that toluene, xylene, and ethylbenzene were used in the facility, the primary chemicals used in the plastics manufacturing process at the facility were proprietary and could not be revealed.

Due to the openness of the facilities and the apparent large air exchange rate with exterior air in the main buildings, the primary potential health risk is anticipated to be in the smaller occupied areas. Based on this information, as well as discussions with the NYSDEC and NYSDOH during the site inspection, it was determined that six sub-slab vapor samples and five indoor air samples would be collected, as well as one outdoor ambient air sample. The sub-slab sample locations were chosen after review of the facility during the site inspection and were based on proximity to potential contamination areas, as well as layout (i.e. footings and floor drains) and floor construction of the buildings. The locations of the January 2011 VI samples are shown on Figure 1.

#### **Vapor Intrusion Sampling (January 2011)**

VI sampling was conducted at the facility on January 26, 2011 (during the 2010/2011 winter heating season). The facility is an active manufacturing facility and samples were collected during regular working hours.

The additional VI sampling was conducted in general accordance with the November 2, 2010 Work Plan. The sampling methods comply with current NYSDOH VI guidance. In general, the SVI sampling steps were:

1. Survey the sampling locations with a PID and complete an Indoor Air Quality Questionnaire and Building Inventory Form (completed Field Data Records are included in Attachment A). PID

readings within the facility are also shown on Figure 1. PID readings within the facility ranged from 70 parts per billion (ppb) to 450,000 ppb.

2. Drill a 1.25-inch hole through the buildings' slab at each of the six chosen sub-slab locations (breakroom, hallway adjacent to restrooms, hallway adjacent to Quality Assurance [QA] lab, production area, former machine shop and shipping area) approximately two-inches into the concrete. The 1.25-inch hole was then advanced approximately 1 to 2 inches through the slab with a 5/8-inch bit.
3. A 7-inch stainless-steel Swagelok permanent sub-slab soil vapor sampling point was then installed in the hole. The vapor points were completed at the ground surface with a fast drying hydraulic cement. A diagram of the permanent soil vapor point installation is included in Attachment B.
4. Approximately 12 hours after installing the permanent soil vapor points, one 60 cc volume was purged with a Syringe from the points prior to connecting the SUMMA canisters. The sub-slab samples were then connected to the soil vapor point with 1/4-inch solid Teflon tubing using a stainless steel nut, feral and collar.
5. Set up five indoor air SUMMA canisters (breakroom, office, QA lab, production area and former machine shop) and one outdoor ambient air SUMMA canister (north of the facility).
6. Open valves on all canisters at roughly the same time for 8-hour sample collection time.
7. Check the sample flow valves periodically during the 8-hour time frame to ensure that the samples were being collected over the proper time interval.
8. After the 8-hour sampling period had elapsed, pick up the canisters and place stainless-steel caps back on the permanent soil vapor points.
9. Label and ship the SUMMA canister samples with chain-of-custody to Test America, a NYSDOH ELAP certified laboratory. Samples were analyzed for VOCs by USEPA TO-15 analysis.

## **Data Evaluation**

Upon receipt of the laboratory analysis, a data usability summary report (DUSR) was completed by a Mactec chemist following the NYSDEC guidance (NYSDEC, 2002). Based on the outcome of the DUSR, the data was deemed usable as presented in this report. The DUSR and complete analytical data is included in Attachment C. Detected compounds and analytical results for the McCaffrey Street Site are summarized in Table 1.

Several VOCs were detected in the sub-slab soil vapor and indoor air samples collected at the McCaffrey facility in January 2011. Based on the product inventory and interviews with Site personnel, as well as a comparison of sub-slab vapor concentrations to indoor air concentrations, most of the VOCs detected within the facility are likely to be related to manufacturing processes within the building. These include the compounds that facility personnel indicated were used within the facility (toluene, ethylbenzene, and

xylene). Although not specifically mentioned by facility personnel, benzene was also detected in the indoor air (up to 1,000  $\mu\text{g}/\text{M}^3$ ). Based on the maximum indoor air concentrations of benzene being two orders of magnitude greater than the maximum sub-slab vapor concentration (1.7  $\mu\text{g}/\text{M}^3$ ), it is presumed that the source is within the facility and not the result of vapor intrusion.

TCE is the primary chemical of concern for soil vapor intrusion at the McCaffrey Street facility based on the historic site groundwater data. The maximum TCE detection in sub-slab soil vapor was from location SS-05 at a concentration of 1,100  $\mu\text{g}/\text{M}^3$ . TCE was not detected above the reporting limit in the five indoor air samples collected from the McCaffrey Street facility. Although the TCE sub-slab soil vapor detection for SS-05 (1,100  $\mu\text{g}/\text{M}^3$ ) was greater than the NYSDOH guidance value requiring mitigation (the NYSDOH recommends mitigation if soil vapor concentrations are greater than 250  $\mu\text{g}/\text{M}^3$ ), this guidance concentration is based the potential for TCE to infiltrate into the facility at a concentration greater than the indoor air guidance value of 5  $\mu\text{g}/\text{M}^3$ . Based on the lack of detections of TCE in the indoor air, the large indoor air space within the facility, and the likely high air exchange rates in the manufacturing space, Mactec does not believe there is an increased health risk to workers within the McCaffrey street facility as a result of soil vapor intrusion. Therefore no further investigation of the SVI pathway is recommended.

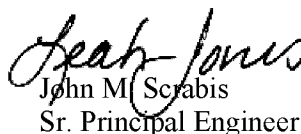
We trust that this VI Report satisfies the requirements of NYSDEC. Please contact Mr. Richard Galloway of Honeywell at (973) 455-4640 or Mr. John Scrabis of Mactec at (412) 279-6661 should you have any questions or require additional information.

Sincerely,

**Mactec Engineering and Consulting, Inc.**



Brandon Shaw  
Project Scientist



John M. Scrabis  
Sr. Principal Engineer

(for JMS with permission)

CS:JMS/llg

w/atts

cc: S.Coladonato (Honeywell)  
J. Maitland (Saint-Gobain)

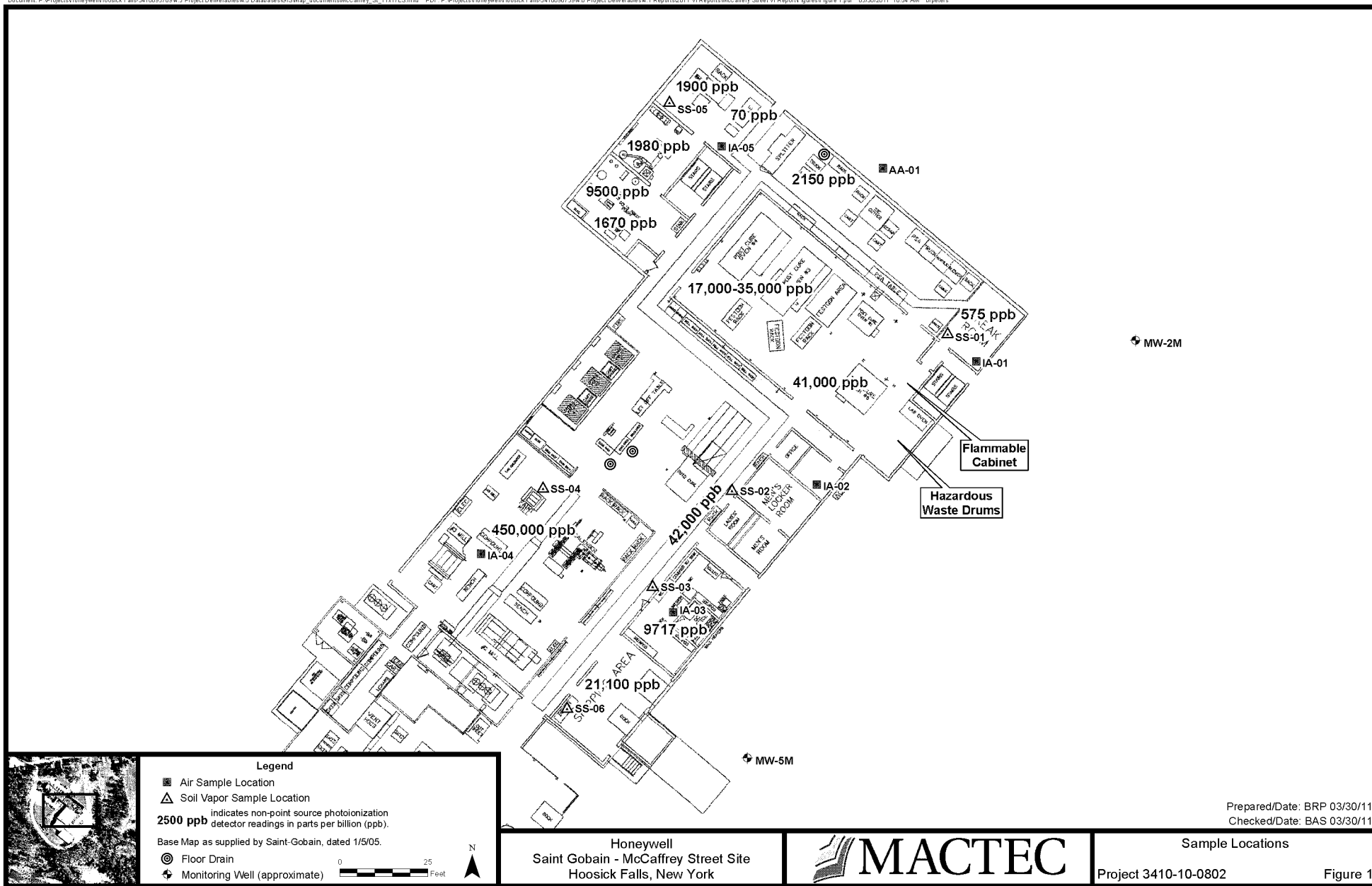


Table 1: 2011 Soil Vapor/Indoor Air VOC Results

Parameter Name	Location		MS-AA-01-2		MS-IA-01-2		MS-IA-02-2		MS-IA-03-2		MS-IA-04-2	
	Sample ID		AA-01-2		IA-01-2		IA-02-2		IA-03-2		IA-04-2	
	Sample Date		01/26/11		01/26/11		01/26/11		01/26/11		01/26/11	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-TRICHLOROETHANE	0.27	U	0.27	U			2.7	U	0.27	U	0.27	U
1,2-DICHLOROETHENE (TOTAL)	0.4	U	0.4	U			4	U	0.4	U	0.4	U
1,3,5-TRIMETHYLBENZENE	0.31	U	0.31	U			3.1	U	0.31	U	0.31	U
1,3-BUTADIENE	0.06	U	0.06	U			0.6	U	<b>0.14</b>	J	0.06	U
2,2,4-TRIMETHYLPENTANE	0.061	U	0.061	U			0.61	U	0.061	U	0.061	U
4-ETHYLTOLUENE	0.31	U	0.31	U			3.1	U	0.31	U	0.31	U
BENZENE	<b>2.2</b>		<b>4.4</b>				<b>1000</b>		<b>8.5</b>		<b>4.3</b>	
CARBON TETRACHLORIDE	<b>0.46</b>	J	<b>0.49</b>	J			3.1	U	<b>0.52</b>	J	<b>0.69</b>	J
CHLOROFORM	0.24	U	0.24	U			2.4	U	0.24	U	<b>0.33</b>	J
CIS-1,2-DICHLOROETHENE	0.2	U	0.2	U			2	U	0.2	U	0.2	U
CYCLOHEXANE	<b>0.32</b>	J	<b>0.29</b>	J			<b>32</b>		<b>1.9</b>		0.041	U
DICHLORODIFLUOROMETHANE	<b>2.7</b>		<b>2.7</b>				0.59	U	<b>2.9</b>		<b>3.1</b>	
ETHYLBENZENE	<b>0.18</b>	J	<b>0.29</b>	J			0.61	U	<b>0.7</b>	J	<b>0.25</b>	J
METHYLENE CHLORIDE	<b>0.84</b>	J	<b>0.58</b>	J			<b>4.3</b>	J	<b>1.3</b>	J	<b>2</b>	
N-HEPTANE	<b>0.29</b>	J	<b>0.51</b>	J			1.1	U	<b>0.73</b>	J	<b>0.52</b>	J
N-HEXANE	<b>0.49</b>	J	<b>0.56</b>	J			0.81	U	<b>1.2</b>		<b>2</b>	
O-XYLENE	0.22	U	<b>0.28</b>	J			2.2	U	<b>0.7</b>	J	0.22	U
TETRACHLOROETHENE	0.12	U	<b>0.36</b>	J			1.2	U	<b>0.64</b>	J	0.12	U
TOLUENE	<b>1.6</b>		<b>31</b>				<b>110</b>		<b>66</b>		<b>6.8</b>	
TRICHLOROETHENE	0.075	U	0.075	U			0.75	U	0.075	U	0.075	U
TRICHLOROFLUOROMETHANE	<b>1.3</b>		<b>1.4</b>				2.8	U	<b>1.4</b>		<b>1.5</b>	
XYLENES, M & P	<b>0.38</b>	J	<b>0.81</b>	J			1	U	<b>2.1</b>	J	<b>0.59</b>	J
XYLENES, TOTAL	0.65	U	<b>1.1</b>				6.5	U	<b>2.8</b>		<b>0.78</b>	J

Notes:

VOC = volatile organic compounds

IA = indoor air sample

SS = sub-slab soil vapor sample

Samples analyzed by Test America by USEPA Method TO-15

Only detected compounds shown; detections are in bold.

Results in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

Qualifiers:

U = compound not detected above method detection limit

J = Estimated value



Table 1: 2011 Soil Vapor/Indoor Air VOC Results

Parameter Name	Location		MS-IA-05-2		MS-SS-01-2		MS-SS-02-2		MS-SS-03-2		MS-SS-04-2	
	Sample ID		IA-05-2		SS-01-2		SS-02-2		SS-03-2		SS-04-2	
	Sample Date		01/26/11		01/26/11		01/26/11		01/26/11		01/26/11	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-TRICHLOROETHANE	0.55 U		<b>0.31 J</b>		<b>0.3 J</b>		<b>3</b>		0.44 U			
1,2-DICHLOROETHENE (TOTAL)	0.79 U		0.4 U		0.4 U		0.4 U		0.63 U			
1,3,5-TRIMETHYLBENZENE	0.63 U		<b>1.2</b>		<b>1.2</b>		<b>0.51 J</b>		<b>4.4</b>			
1,3-BUTADIENE	0.12 U		0.06 U		0.06 U		0.06 U		0.096 U			
2,2,4-TRIMETHYLPENTANE	0.12 U		0.061 U		0.061 U		0.061 U		0.097 U			
4-ETHYLTOLUENE	0.63 U		<b>0.43 J</b>		<b>1.3</b>		0.31 U		<b>2.3</b>			
BENZENE	<b>0.75 J</b>		<b>0.26 J</b>		<b>1.1</b>		<b>1.7</b>		<b>1 J</b>			
CARBON TETRACHLORIDE	0.63 U		<b>0.49 J</b>		<b>0.39 J</b>		0.31 U		0.5 U			
CHLOROFORM	0.49 U		0.24 U		<b>0.78 J</b>		<b>3.1</b>		0.39 U			
CIS-1,2-DICHLOROETHENE	0.4 U		0.2 U		0.2 U		0.2 U		0.32 U			
CYCLOHEXANE	0.083 U		0.041 U		0.041 U		<b>0.21 J</b>		<b>0.88 J</b>			
DICHLORODIFLUOROMETHANE	<b>3 J</b>		<b>3.1</b>		<b>2.9</b>		<b>10</b>		<b>4.1</b>			
ETHYLBENZENE	0.12 U		<b>0.64 J</b>		<b>3.5</b>		<b>0.49 J</b>		<b>13</b>			
METHYLENE CHLORIDE	<b>4.2</b>		1.7 U		1.7 U		1.7 U		<b>24</b>			
N-HEPTANE	0.22 U		<b>0.27 J</b>		<b>0.28 J</b>		<b>0.38 J</b>		<b>1 J</b>			
N-HEXANE	0.16 U		<b>0.18 J</b>		<b>0.42 J</b>		<b>0.3 J</b>		<b>0.92 J</b>			
O-XYLENE	0.43 U		<b>1</b>		<b>2.5</b>		<b>0.56 J</b>		<b>8.3</b>			
TETRACHLOROETHENE	0.23 U		<b>0.4 J</b>		<b>0.59 J</b>		<b>0.63 J</b>		<b>1.4 J</b>			
TOLUENE	<b>0.44 J</b>		<b>2.3</b>		<b>2.6</b>		<b>11</b>		<b>8.4</b>			
TRICHLOROETHENE	0.15 U		<b>4.8</b>		<b>52</b>		<b>130</b>		<b>230</b>			
TRICHLOROFLUOROMETHANE	<b>1.4 J</b>		<b>1.6</b>		<b>1.5</b>		<b>1.5</b>		<b>1.6 J</b>			
XYLENES, M & P	0.2 U		<b>2.9</b>		<b>12</b>		<b>1.8 J</b>		<b>38</b>			
XYLENES, TOTAL	1.3 U		<b>3.9</b>		<b>14</b>		<b>2.4</b>		<b>47</b>			

Notes:

VOC = volatile organic compounds

IA = indoor air sample

SS = sub-slab soil vapor sample

Samples analyzed by Test America by USEPA Method TO-15

Only detected compounds shown; detections are in bold.

Results in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

Qualifiers:

U = compound not detected above method detection limit

J = Estimated value

Table 1: 2011 Soil Vapor/Indoor Air VOC Results

Parameter Name	Location		MS-SS-05-2		MS-SS-06-2		MS-SS-06-2-D	
	Sample ID		SS-05-2		SS-06-2		SS-06-2	
	Sample Date		01/26/11		01/26/11		01/26/11	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-TRICHLOROETHANE	2.5	U	4.1		4.1			
1,2-DICHLOROETHENE (TOTAL)	23		0.4	U	0.4	U		
1,3,5-TRIMETHYLBENZENE	2.9	U	0.79	J	0.85	J		
1,3-BUTADIENE	0.54	U	0.06	U	0.06	U		
2,2,4-TRIMETHYLPENTANE	0.55	U	0.061	U	0.061	U		
4-ETHYLTOLUENE	2.9	U	0.64	J	0.51	J		
BENZENE	1.5	U	0.74		0.75			
CARBON TETRACHLORIDE	2.9	U	0.4	J	0.39	J		
CHLOROFORM	4.4	J	0.24	U	0.24	U		
CIS-1,2-DICHLOROETHENE	23		0.2	U	0.2	U		
CYCLOHEXANE	0.38	U	0.041	U	0.19	J		
DICHLORODIFLUOROMETHANE	0.54	U	14		14			
ETHYLBENZENE	3.1	J	3.7		3.6			
METHYLENE CHLORIDE	16	U	1.7	U	1.7	U		
N-HEPTANE	5.7	J	0.25	J	0.36	J		
N-HEXANE	1.3	J	0.15	J	0.25	J		
O-XYLENE	3.9	J	3.1		3			
TETRACHLOROETHENE	21		1.9		1.9			
TOLUENE	8.8		5.4		5.5			
TRICHLOROETHENE	1,100		80		77			
TRICHLOROFLUOROMETHANE	2.6	U	1.4		1.4			
XYLENES, M & P	13	J	12		12			
XYLENES, TOTAL	17		15		15			

Notes:

VOC = volatile organic compounds

IA = indoor air sample

SS = sub-slab soil vapor sample

Samples analyzed by Test America by USEPA Method TO-15

Only detected compounds shown; detections are in bold.

Results in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

Qualifiers:

U = compound not detected above method detection limit

J = Estimated value

**ATTACHMENT A**  
**JANUARY 2011 FIELD DATA RECORDS**

# INDOOR AIR SAMPLING RECORD

PROJECT NAME: Former Furon Sites - McCaffery Street LOCATION ID: McCaffery St DATE: 01-26-2011  
 PROJECT NO./TASK NO.: 3410100802 CLIENT: Honeywell  
 PROJECT LOCATION: Hoosick Falls, New York SAMPLER NAME: Brandon Shaw  
 WEATHER CONDITIONS (AM): 24°F, Overcast SAMPLER SIGNATURE: [Signature]  
 WEATHER CONDITIONS (PM): 20°F, dark CHECKED BY: BSS DATE: 3/31/2011

## SUMMA Canister Record Information

INDOOR AIR		INDOOR AIR		INDOOR AIR		ASSOCIATED AMBIENT AIR	
Flow Regulator Number:	3743	Flow Regulator Number:	4178	Flow Regulator Number:	5198	Flow Regulator Number:	5175
Flow Rate (mL/min):	~13	Flow Rate (mL/min):	~12	Flow Rate (mL/min):	~12	Flow Rate (mL/min):	~10
Canister Serial Number:	<del>2475</del> 4557	Canister Serial Number:	4871	Canister Serial Number:	3243	Canister Serial Number:	2692
Start Date/Time:	01-26-2011 0941	Start Date/Time:	01-26-2011 0855	Start Date/Time:	01-26-2011 0927	Start Date/Time:	01-26-2011 0945
Start Pressure ("Hg):	-30	Start Pressure ("Hg):	-27	Start Pressure ("Hg):	-29	Start Pressure ("Hg):	-28
Stop Date/Time:	01-26-2011 1725	Stop Date/Time:	01-26-2011 1557	Stop Date/Time:	01-26-2011 1721	Stop Date/Time:	01-26-2011 1734
Stop Pressure ("Hg):	-4	Stop Pressure ("Hg):	-1	Stop Pressure ("Hg):	-6	Stop Pressure ("Hg):	-4
Sample ID:	MS-IA-01-2	Sample ID:	MS-IA-02-2	Sample ID:	MS-IA-03-2	Sample ID:	MS-AA-01-2

## Other Sampling Information:

Story/Level:	First	Story/Level:	First	Story/Level:	First	Direction from Building:	N.
Room:	Kitchen	Room:	Office	Room:	QA Lab	Distance from Building:	~5'
Potential Vapor Entry Points:	opening doors	Potential Vapor Entry Points:	none	Potential Vapor Entry Points:	door	Distance from Roadway:	~200'
Floor Surface:	linoleum	Floor Surface:	tile	Floor Surface:	tile	Ground Surface:	snow.
Noticable Odor:	none	Noticable Odor:	slight	Noticable Odor:	slight	Noticable Odor:	none
PID Reading (ppb):	775	PID Reading (ppb):	6000	PID Reading (ppb):	4760	PID Reading (ppb):	<del>480</del> 87
Intake Height:	~3'	Intake Height:	~4'	Intake Height:	~4'	Intake Height Above Ground Surface:	~4'
Indoor Air Temp:	68°F	Indoor Air Temp:	70°F	Indoor Air Temp:	70°F	Intake Tubing Used?	No.

## Comments/Location Sketch:

Samples collected in 6L summa type canisters;



511 Congress Street, Portland, ME 04101

FIGURE 4-19  
INDOOR AIR SAMPLING RECORD  
NYSDEC QUALITY ASSURANCE PROJECT PLAN

# INDOOR AIR SAMPLING RECORD

PROJECT NAME: Former Furon Sites - McCaffery Street LOCATION ID: MS DATE: 01-26-2011  
 PROJECT NO./TASK NO.: 3410100802 CLIENT: Honeywell  
 PROJECT LOCATION: Hoosick Falls, New York SAMPLER NAME: Brandon Shaw  
 WEATHER CONDITIONS (AM): 29°F, overcast SAMPLER SIGNATURE: [Signature]  
 WEATHER CONDITIONS (PM): 30°F, dark CHECKED BY: BJS DATE: 3/31/2011

## SUMMA Canister Record Information

INDOOR AIR		INDOOR AIR		INDOOR AIR		ASSOCIATED AMBIENT AIR	
Flow Regulator Number:	5173	Flow Regulator Number:	3222	Flow Regulator Number:		Flow Regulator Number:	5175
Flow Rate (mL/min):	~10	Flow Rate (mL/min):	~10	Flow Rate (mL/min):		Flow Rate (mL/min):	~10
Canister Serial Number:	3507	Canister Serial Number:	3541	Canister Serial Number:		Canister Serial Number:	2692
Start Date/Time:	01-26-2011 0938	Start Date/Time:	01-26-2011 0946	Start Date/Time:		Start Date/Time:	01-26-2011 0945
Start Pressure ("Hg):	-29	Start Pressure ("Hg):	-28	Start Pressure ("Hg):		Start Pressure ("Hg):	-28
Stop Date/Time:	01-26-2011 1730	Stop Date/Time:	01-26-2011 1730	Stop Date/Time:		Stop Date/Time:	01-26-2011 1734
Stop Pressure ("Hg):	-6	Stop Pressure ("Hg):	1752	Stop Pressure ("Hg):		Stop Pressure ("Hg):	-4
Sample ID:	MS-IA-04-2	Sample ID:	MS-IA-05-2	Sample ID:		Sample ID:	MS-AA-01-2

## Other Sampling Information:

Story/Level:	First	Story/Level:	First	Story/Level:		Direction from Building:	N
Room:	Production Area	Room:	Former Machine Shop	Room:		Distance from Building:	~5
Potential Vapor Entry Points:	none	Potential Vapor Entry Points:	none	Potential Vapor Entry Points:		Distance from Roadway:	~200'
Floor Surface:	Rubber Concrete	Floor Surface:	Concrete	Floor Surface:		Ground Surface:	Snow
Noticable Odor:	V. Strong	Noticable Odor:	Strong	Noticable Odor:		Noticable Odor:	none
PID Reading (ppb):	450 ppb	PID Reading (ppb):	980	PID Reading (ppb):		PID Reading (ppb):	89 ppb
Intake Height:	~4'	Intake Height:	~5'	Intake Height:		Intake Height Above Ground Surface:	~4'
Indoor Air Temp:	72°F	Indoor Air Temp:	72°F	Indoor Air Temp:		Intake Tubing Used?	no

## Comments/Location Sketch:

cleaning with acetone in production room (SS-04/IA-04).



511 Congress Street, Portland, ME 04101

FIGURE 4-19  
 INDOOR AIR SAMPLING RECORD  
 NYSDEC QUALITY ASSURANCE PROJECT PLAN

# SUB SLAD AND INDOOR AIR SAMPLING RECORD

PROJECT NAME: Former Furon Sites - McCaffery Street Site LOCATION ID: MS DATE: 01-26-2011  
 PROJECT NO./TASK NO.: 3410100802, 2100 CLIENT: Honeywell  
 PROJECT LOCATION: Hoosick Falls, New York SAMPLER NAME: Brandon Shaw  
 WEATHER CONDITIONS (AM): 24°F, overcast SAMPLER SIGNATURE: [Signature]  
 WEATHER CONDITIONS (PM): 30°F, dark CHECKED BY: BJS DATE: 3/31/2011

## SUMMA Canister Record Information

SUB-SLAB SOIL VAPOR SAMPLE		SUB-SLAB SOIL VAPOR SAMPLE		SUB-SLAB SOIL VAPOR SAMPLE		SUB-SLAB SOIL VAPOR SAMPLE	
Flow Regulator Number:	3058	Flow Regulator Number:	3020	Flow Regulator Number:	5194	Flow Regulator Number:	3177
Flow Rate (mL/min):	~11	Flow Rate (mL/min):	~13	Flow Rate (mL/min):	~10	Flow Rate (mL/min):	~12
Canister Serial Number:	3205	Canister Serial Number:	4305	Canister Serial Number:	4328	Canister Serial Number:	4775
Start Date/Time:	01-26-2011 0941	Start Date/Time:	01-26-2011 0940	Start Date/Time:	01-26-2011 0937	Start Date/Time:	01-26-2011 0938
Start Pressure ("Hg):	-30	Start Pressure ("Hg):	-30	Start Pressure ("Hg):	-29	Start Pressure ("Hg):	-28
Stop Date/Time:	01-26-2011 1748	Stop Date/Time:	01-26-2011 1728	Stop Date/Time:	01-26-2011 1720	Stop Date/Time:	01-26-2011 1722
Stop Pressure ("Hg):	-6	Stop Pressure ("Hg):	-3	Stop Pressure ("Hg):	-4	Stop Pressure ("Hg):	-5
Sample ID:	MS-SS-01-2	Sample ID:	MS-SS-02-2	Sample ID:	MS-SS-03-2	Sample ID:	MS-SS-04-2

## Other Sampling Information:

Room:	Kitchen	Room:	near Hallway restroom	Room:	near Hallway OA Lab	Room:	Production Area
Floor Slab Thickness:	~6"	Floor Slab Thickness:	~6"	Floor Slab Thickness:	~7"	Floor Slab Thickness:	~6"
Potential Vapor Entry Points:	none	Potential Vapor Entry Points:	none	Potential Vapor Entry Points:	none	Potential Vapor Entry Points:	none
Floor Surface:	linoleum	Floor Surface:	concrete	Floor Surface:	concrete	Floor Surface:	concrete
Noticable Odor:	NA	Noticable Odor:	NA	Noticable Odor:	NA	Noticable Odor:	NA
PID Reading (ppb):	408	PID Reading (ppb):	827	PID Reading (ppb):	2225	PID Reading (ppb):	1352
Intake Depth:	~7.5"	Intake Depth:	~7.5"	Intake Depth:	~7.5"	Intake Depth:	~7.5"
Helium Test Conducted?	NO	Helium Test Conducted?	NO	Helium Test Conducted?	NO	Helium Test Conducted?	NO

### Comments/Location Sketch:

Refer to figure 1 for location sketch.



511 Congress Street, Portland, ME 04101

# SUB SLAB AND INDOOR AIR SAMPLING RECORD

PROJECT NAME: Former Furon Sites - McCaffery Street Site LOCATION ID: MS DATE: 01-26-2011  
 PROJECT NO./TASK NO.: 3410100802, 2100 CLIENT: Honeywell  
 PROJECT LOCATION: Hoosick Falls, New York SAMPLER NAME: Brandon Shaw  
 WEATHER CONDITIONS (AM): 24°F, Overcast SAMPLER SIGNATURE: [Signature]  
 WEATHER CONDITIONS (PM): 30°F, dark CHECKED BY: BJS DATE: 3/31/2011

## SUMMA Canister Record Information

SUB-SLAB SOIL VAPOR SAMPLE		SUB-SLAB SOIL VAPOR SAMPLE		SUB-SLAB SOIL VAPOR SAMPLE		SUB-SLAB SOIL VAPOR SAMPLE	
Flow Regulator Number:	5191	Flow Regulator Number:	4762	Flow Regulator Number:		Flow Regulator Number:	3481
Flow Rate (mL/min):	~10	Flow Rate (mL/min):	~13	Flow Rate (mL/min):		Flow Rate (mL/min):	~13
Canister Serial Number:	2844	Canister Serial Number:	2858	Canister Serial Number:		Canister Serial Number:	3160
Start Date/Time:	01-26-2011 0946	Start Date/Time:	01-26-2011 0935	Start Date/Time:		Start Date/Time:	01-26-2011 0935
Start Pressure ("Hg):	-28	Start Pressure ("Hg):	-30	Start Pressure ("Hg):		Start Pressure ("Hg):	-30
Stop Date/Time:	01-26-2011 1717	Stop Date/Time:	01-26-2011 1743	Stop Date/Time:		Stop Date/Time:	01-26-2011 1743
Stop Pressure ("Hg):	-5	Stop Pressure ("Hg):	-1	Stop Pressure ("Hg):		Stop Pressure ("Hg):	-2
Sample ID:	MS-SS-05-2	Sample ID:	MS-SS-06-2	Sample ID:		Sample ID:	MS-SS-06-2-D

## Other Sampling Information:

Room:	Former Machine Shop	Room:	Shipping	Room:		Room:	see parent sample for other sampling
Floor Slab Thickness:	~6"	Floor Slab Thickness:	~7"	Floor Slab Thickness:		Floor Slab Thickness:	info
Potential Vapor Entry Points:	none	Potential Vapor Entry Points:	none	Potential Vapor Entry Points:		Potential Vapor Entry Points:	
Floor Surface:	Concrete	Floor Surface:	concrete	Floor Surface:		Floor Surface:	
Noticable Odor:	NA	Noticable Odor:	NA	Noticable Odor:		Noticable Odor:	
PID Reading (ppb):	1057	PID Reading (ppb):	534	PID Reading (ppb):		PID Reading (ppb):	
Intake Depth:	~7.5"	Intake Depth:	~7.5"	Intake Depth:		Intake Depth:	
Helium Test Conducted?	NO	Helium Test Conducted?	NO	Helium Test Conducted?		Helium Test Conducted?	

### Comments/Location Sketch:

\* greater than the detection limit for instrument.  
 Refer to Figure 1 for location sketch.



511 Congress Street, Portland, ME 04101

14 McLaffrey Street

NEW YORK STATE DEPARTMENT OF HEALTH  
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY  
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Ryan Markowski Date/Time Prepared 1/25/11 @ 1350  
Preparer's Affiliation MACTEC Phone No. 207-831-2131

Purpose of Investigation SOIL VAPOR Intrusion Investigation

1. OCCUPANT: → Maintenance Manager

Interviewed: (Y) N

Last Name: BEAUMONT First Name: PJ

Address: 14 McLaffrey Street

County: Rensselaer ↳ Hoosick Falls, NY

Home Phone: — Office Phone: —

Number of Occupants/persons at this location — Age of Occupants various

2. OWNER OR LANDLORD: (Check if same as occupant NA)

Interviewed: Y (N)

Last Name: — First Name: —

Address: —

County: —

Home Phone: — Office Phone: —

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential  
Industrial

School  
Church

Commercial/Multi-use Plant/Factory  
Other: —



Mulatteny St

If the property is residential, type? (Circle appropriate response)

- |              |                         |                   |
|--------------|-------------------------|-------------------|
| Ranch        | <del>Rem</del> 2-Family | 3-Family          |
| Raised Ranch | Split Level             | Colonial          |
| Cape Cod     | Contemporary            | Mobile Home       |
| Duplex       | Apartment House         | Townhouses/Condos |
| Modular      | Log Home                | Other: _____      |

If multiple units, how many? —

If the property is commercial, type?

Business Type(s) Plastics + Rubber

Does it include residences (i.e., multi-use)? Y ☒ N ☐ If yes, how many? NA

Other characteristics:

Number of floors 4 Building age Original 1959 / Addition 1966

Is the building insulated? Y ☒ N ☐ How air tight? Tight / Average ☒ Not Tight ☐

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

- Stairwells are sealed
- 2nd/3rd floor bathrooms have common exhaust

Airflow near source

Various hoods + vents that help keep air circulating throughout plant/factory

Outdoor air infiltration

Open doors, loading docks, + overhead doors throughout the facility

Infiltration into air ducts

~~Rem 1/25/11~~

✓  
DK  
03-31-2011

McLafferty St

## 5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

- a. Above grade construction: wood frame Block concrete stone brick also Steel Frame
- b. Basement type: full crawlspace slab other \_\_\_\_\_
- c. Basement floor: concrete dirt stone other \_\_\_\_\_
- d. Basement floor: uncovered covered covered with Appox Paint
- e. Concrete floor: unsealed sealed sealed with \_\_\_\_\_
- f. Foundation walls: poured block stone other \_\_\_\_\_
- g. Foundation walls: unsealed sealed sealed with Appox Paint
- h. The basement is: wet damp dry moldy
- i. The basement is: finished unfinished partially finished
- j. Sump present? Y/N
- k. Water in sump? Y/N not applicable

Basement/Lowest level depth below grade: 0 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

See updated figures/maps to identify points

## 6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation  
~~Space Heaters~~  
Electric baseboard

Heat pump  
 Stream radiation  
 Wood stove

Hot water baseboard  
 Radiant floor  
 Outdoor wood boiler

Other Gas fired  
Hot Air make-up

The primary type of fuel used is:

Natural Gas  
Electric 1st  
 Wood

Fuel Oil  
Propane 2nd  
 Coal

Kerosene  
 Solar

Domestic hot water tank fueled by:

Propane

Boiler/furnace located in:

Basement

Outdoors

Main Floor

Other \_\_\_\_\_

Air conditioning:

Central Air

Window units

Open Windows

None

MS  
 03-31-2011

McClafferty ST

Are there air distribution ducts present?

☒ Y / ☐ N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Ductwork appears to be functioning properly  
 ↳ sealed, tight, & welded together

## 7. OCCUPANCY

Is basement/lowest level occupied?

☒ Full-time☐ Occasionally☐ Seldom☐ Almost Never

Level

General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement

NA

1<sup>st</sup> Floor

Production, shipping/Loading, storage, offices/Labs

2<sup>nd</sup> Floor

offices + Bathrooms

3<sup>rd</sup> Floor

offices, Bathrooms, &amp; Conference rooms

4<sup>th</sup> Floor

Lab

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage?

☒ Y / ☐ N → Loading Docks

b. Does the garage have a separate heating unit?

Y / ☒ N / ☐ NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car)

Y / ☒ N / ☐ NA

Please specify \_\_\_\_\_

d. Has the building ever had a fire?

Y / ☒ N When? \_\_\_\_\_

e. Is a kerosene or unvented gas space heater present?

☒ Y / ☐ N Where? Propane Direct Fire Air make-up

f. Is there a workshop or hobby/craft area?

☒ Y / ☐ N Where & Type? throughout the facility

g. Is there smoking in the building?

Y / ☒ N How frequently? \_\_\_\_\_

h. Have cleaning products been used recently?

☒ Y / ☐ N When & Type? ACETONE

i. Have cosmetic products been used recently?

Y / ☒ N When & Type? \_\_\_\_\_

AB  
 03-21-2011

Molokai St.

- j. Has painting/staining been done in the last 6 months? ☒ Y / ☐ N Where & When? NOV 2010, 1st Floor (Floor)
- k. Is there new carpet, drapes or other textiles? ☒ Y / ☐ N Where & When? \_\_\_\_\_
- l. Have air fresheners been used recently? ☒ Y / ☐ N When & Type? \_\_\_\_\_
- m. Is there a kitchen exhaust fan? ☒ Y / ☐ N If yes, where vented? \_\_\_\_\_
- n. Is there a bathroom exhaust fan? ☒ Y / ☐ N If yes, where vented? \_\_\_\_\_
- o. Is there a clothes dryer? ☒ Y / ☐ N If yes, is it vented outside? Y / N
- p. Has there been a pesticide application? ☒ Y / ☐ N When & Type? Summer 2010  
Around Building
- Are there odors in the building? ☒ Y / ☐ N  
If yes, please describe: \_\_\_\_\_

Do any of the building occupants use solvents at work? ☒ Y / ☐ N  
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? Acetone + Toluene

If yes, are their clothes washed at work?

☒ Y / ☐ N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

- Yes, use dry-cleaning regularly (weekly)  
Yes, use dry-cleaning infrequently (monthly or less)  
Yes, work at a dry-cleaning service

No  
Unknown

Is there a radon mitigation system for the building/structure? ☒ Y / ☐ N Date of Installation: \_\_\_\_\_  
Is the system active or passive? Active/Passive

## 9. WATER AND SEWAGE

Water Supply: ☒ Public Water ☐ Drilled Well ☐ Driven Well ☐ Dug Well Other: \_\_\_\_\_

Sewage Disposal: ☒ Public Sewer ☐ Septic Tank ☐ Leach Field ☐ Dry Well Other: \_\_\_\_\_

## 10. RELOCATION INFORMATION (for oil spill residential emergency)

- a. Provide reasons why relocation is recommended: \_\_\_\_\_
- b. Residents choose to: remain in home <sup>rem</sup> relocate to friends/family relocate to hotel/motel
- c. Responsibility for costs associated with reimbursement explained? 1/25/11 Y / N
- d. Relocation package provided and explained to residents? Y / N

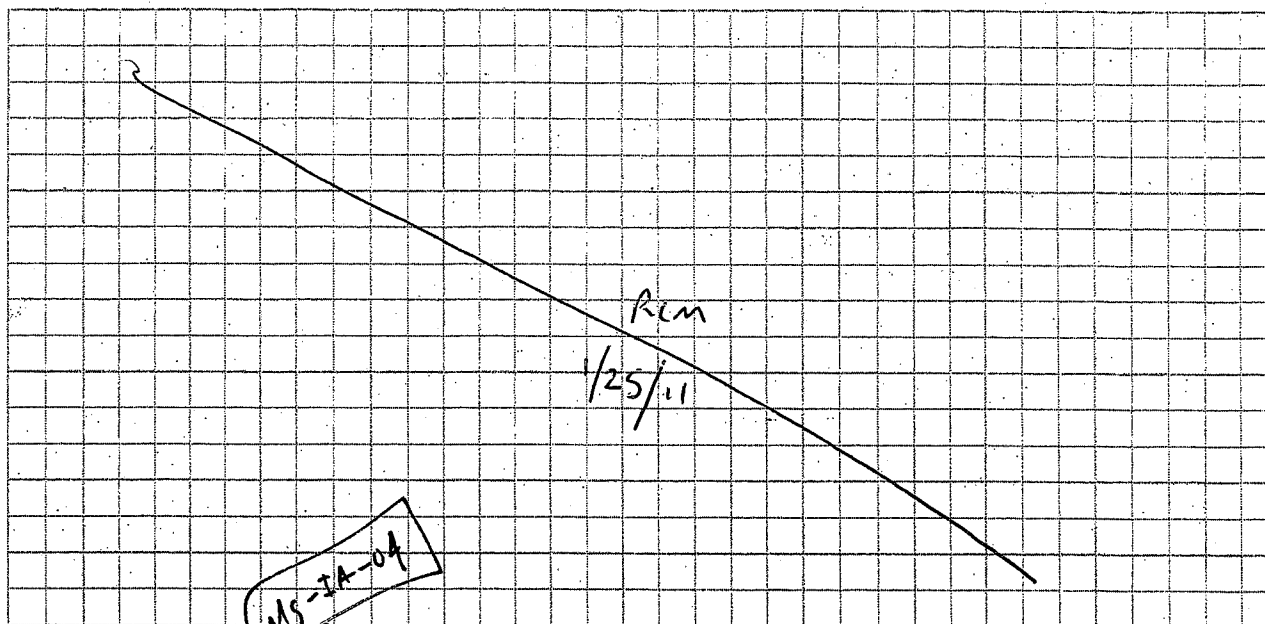
✓  
3-31-2011.

## 11. FLOOR PLANS

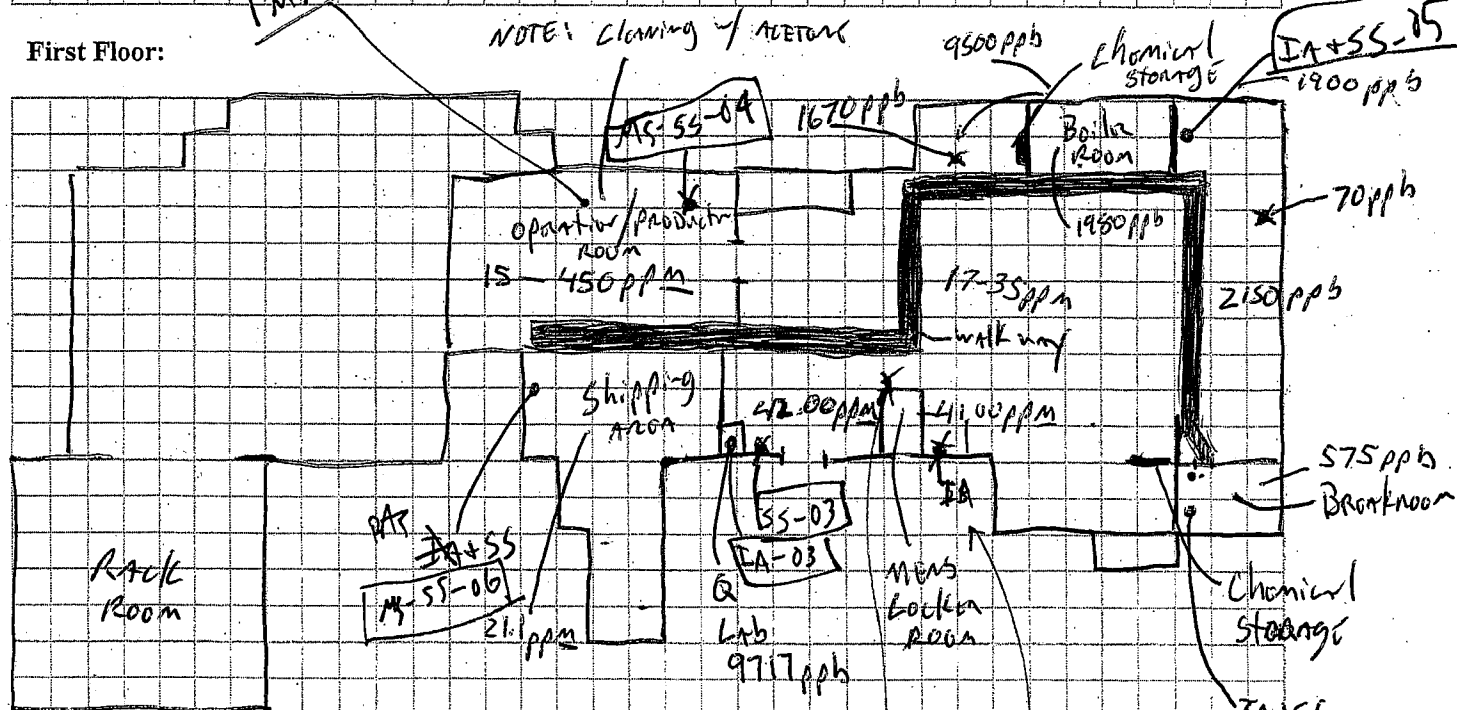
McCaffery St.

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



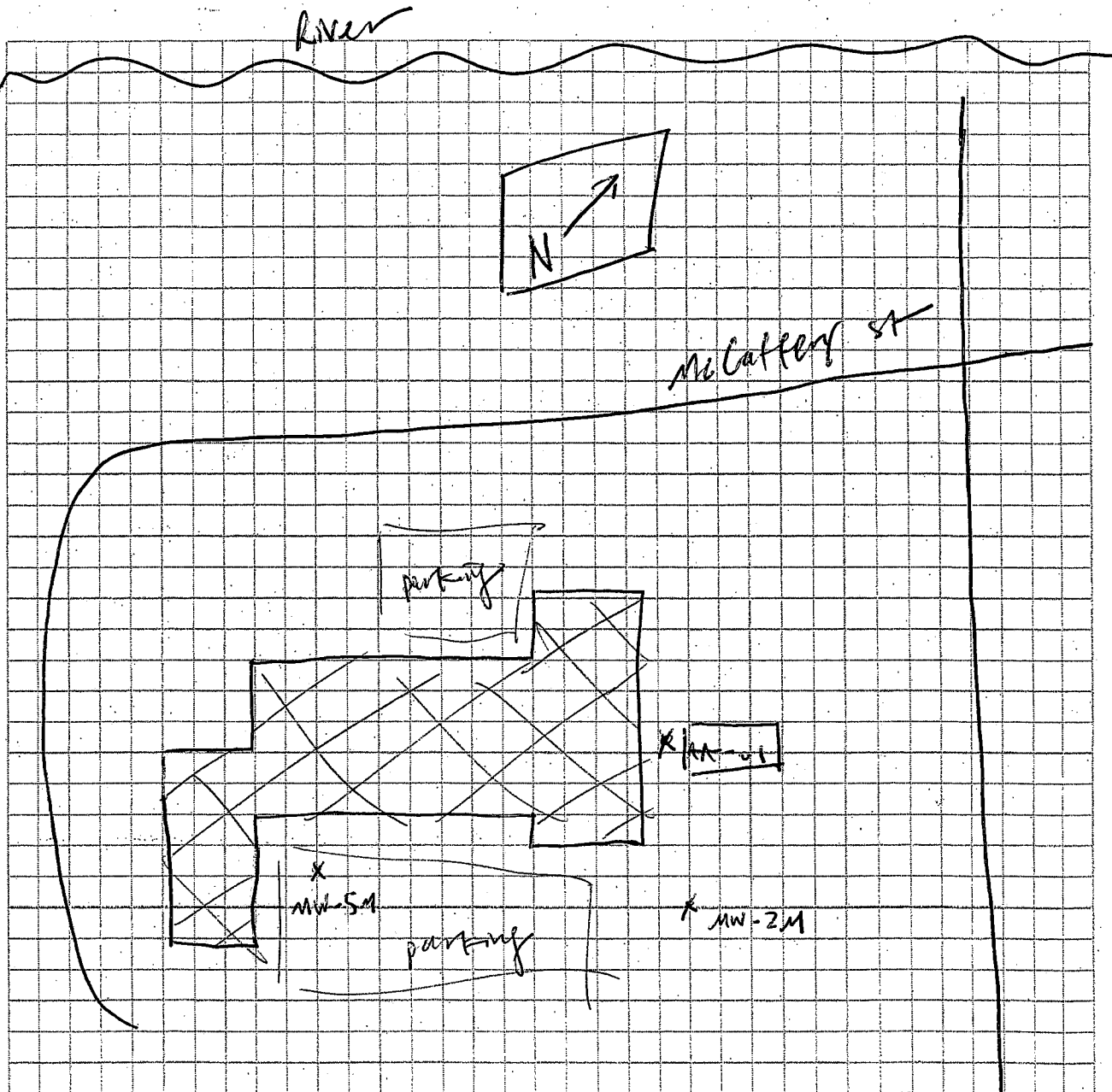
✓  
1/2  
63-21-211.

McLafferty St

## 12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



## 13. PRODUCT INVENTORY FORM

Make &amp; Model of field instrument used:

ppb RAE 3000 - Pine

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition *	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y/N
1st Floor	Silicone	1,55gal	U		~600ppm	Y
1st Floor	Acrylic	1,55gal	U		~550ppm	Y
1st Floor	Organic Peroxide Trioxonox	5,5gal	U		15-400ppm	Y
1st Floor	Methylhydrogen siloxane	1,55gal	U		8200ppb	Y
1st Floor	Vinylpolydimethylsiloxane	1,55gal	U		1500ppm	Y
1st Floor	Vinyl Silicone	1,55gal	U		12.15ppm	Y
1st Floor	Vinyl Silicone	1,55gal	U		7000ppb	Y
1st Floor	Polydimethylsiloxane	2,5gal	U		7500ppb	Y
1st Floor	Silbond	1,5gal	U		7500ppb	Y
1st Floor	Crosslinker	2,5gal	U		7500ppb	Y
1st Floor	ACETONE WASTE BIN	5-10 Bins	U		> 10000ppm	Y
1st Floor	Waste Mercury	1,5gal	U		~70ppm	Y
1st Floor	Liquid Rubber	2,5gal	U		~10ppm	Y
1st Floor	Spray Mink	5,32ozes	U		1300ppb	Y

\* Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D)

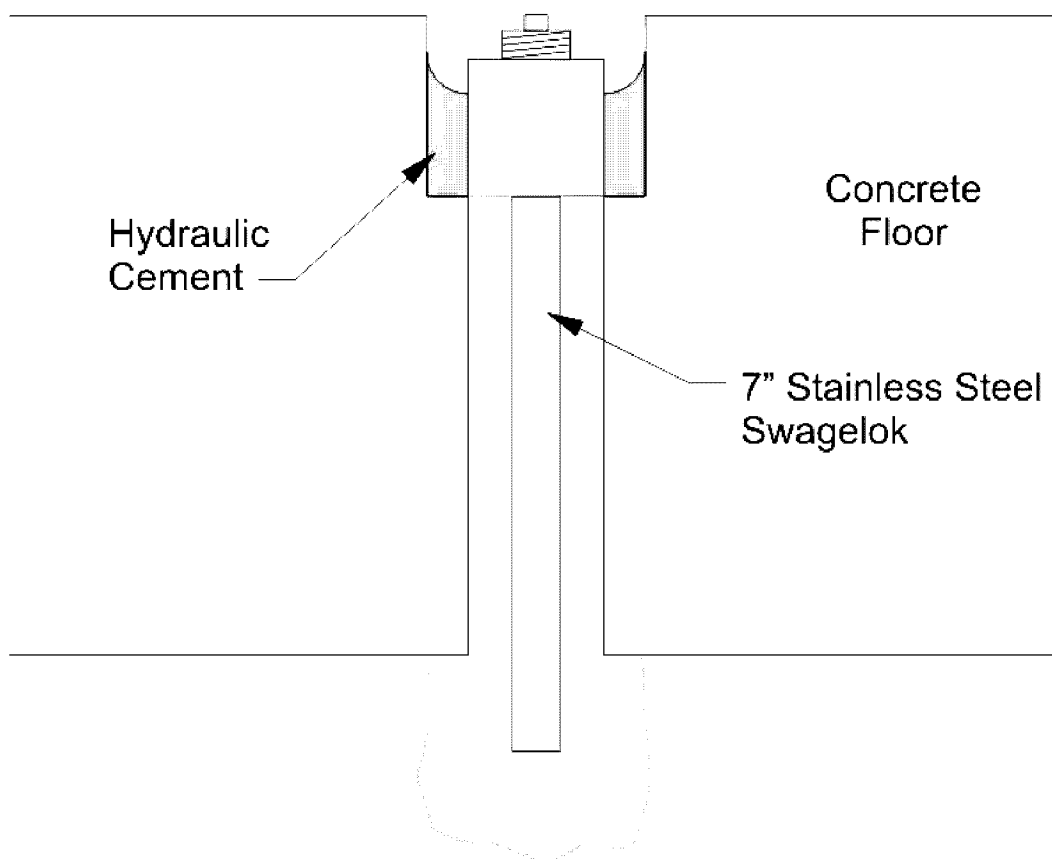
\*\* Photographs of the front and back of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

✓  
PB  
03-31-2011

**ATTACHMENT B**

**PERMANENT SUB-SLAB SOIL VAPOR POINT DIAGRAM**





## Permanent Sub Slab Soil Vapor Point

PORT2011013b

**ATTACHMENT C**  
**DATA USABILITY SUMMARY REPORT**

**DATA USABILITY SUMMARY REPORT  
JANUARY 2011 INDOOR AIR AND SUB-SLAB VAPOR SAMPLING  
FORMER HONEYWELL SITE - McCAFFREY ST  
HOOSICK FALLS, NEW YORK**

**1.0 INTRODUCTION**

Indoor air and sub-slab vapor samples were collected at the Former Honeywell Hoosick Falls - McCaffrey St Site (Site) in Hoosick Falls, New York in January 2011 and submitted for off-site laboratory analysis. Samples were analyzed by TestAmerica Laboratories located in South Burlington, Vermont (TAL-BUR). Results were reported in sample delivery group (SDG) 220-3615.

A listing of samples included in this Data Usability Summary Report (DUSR) is presented in Table 1. A summary of the final analytical results is presented in Table 2. A summary of samples qualified during this review is presented in Table 3. Samples were analyzed by the following methods:

- Volatile organic compounds (VOCs) by USEPA Method TO-15

Deliverables for the off-site laboratory analyses included a Category B deliverable as defined in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocols (NYSDEC, 2005). Results were reported in units of ppbv and  $\mu\text{g}/\text{m}^3$  in the lab reports. The unit used in reporting data for this project is  $\mu\text{g}/\text{m}^3$ .

A project chemist review was completed based on NYSDEC Division of Environmental Remediation guidance for Data Usability Summary Reports (NYSDEC, 2010). USEPA Region II quality control (QC) limits were used during the data evaluation unless noted otherwise (USEPA, 2006). The project chemist review included evaluations of sample collection, data package completeness, holding times, QC data (blanks, instrument calibrations, duplicates, surrogate recovery, and control sample recovery), data transcription, electronic data reporting, calculations, and data qualification.

The following laboratory or data validation qualifiers are used in the final data presentation.

U = target analyte is not detected at the reporting limit

J = concentration is estimated

Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.

**2.0 VOLATILE ORGANIC COMPOUNDS (VOCs)**

VOC - Blanks

Methylene chloride was observed in the method blank associated with a subset of samples at a concentration of  $0.57 \mu\text{g}/\text{m}^3$ . An action level of  $2.85 \mu\text{g}/\text{m}^3$  was established at five times the concentration reported in the blank. Methylene chloride detections in associated samples MS-SS-01-2, MS-SS-02-2, MS-SS-03-2, MS-SS-05-2, MS-SS-06-2, MS-SS-06-2-D, LS-SS-01-2-D, LS-

SS-02-2, LS-SS-04-2, LS-SS-05-2, and LS-SS-06-2 were below the established action levels and were qualified as non-detect (U) at the reporting limit.

Field Sample ID	QC Code	Lab ID	Compound	Dilution Factor	Final Result ( $\mu\text{g}/\text{m}^3$ )	Final Qual	Lab Result ( $\mu\text{g}/\text{m}^3$ )	Lab Qual
MS-SS-01-2	FS	200-3615-7	Methylene Chloride	1	1.7	U	0.55	JB
MS-SS-02-2	FS	200-3615-8	Methylene Chloride	1	1.7	U	0.56	JB
MS-SS-03-2	FS	200-3615-9	Methylene Chloride	1	1.7	U	0.86	JB
MS-SS-05-2	FS	200-3615-11	Methylene Chloride	9.09	16	U	3.2	JB
MS-SS-06-2	FS	200-3615-12	Methylene Chloride	1	1.7	U	0.81	JB
MS-SS-06-2-D	FD	200-3615-13	Methylene Chloride	1	1.7	U	0.88	JB

### VOC - Sample Reporting

Dilution analyses were performed on the following samples due to elevated concentrations of target compounds. Reporting limits for target compounds that were not detected in samples are elevated due to dilution.

Field Sample ID	QC Code	Lab ID	Dilution Factor
MS-IA-02-2	FS	200-3615-2	10
MS-IA-05-2	FS	200-3615-5	2
MS-SS-04-2	FS	200-3615-10	1.6
MS-SS-05-2	FS	200-3615-11	9.09

### **Reference:**

New York State Department of Environmental Conservation (NYSDEC), 2005. "Analytical Services Protocols"; July 2005.

New York State Department of Environmental Conservation (NYSDEC), 2010. "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; DER-10; Division of Environmental Remediation; May 2010.

U.S. Environmental Protection Agency (USEPA), 2006. "Validating Air Samples Volatile Organic Analysis of Ambient Air in Canister by Method TO-15"; USEPA Region II; HW-31; Revision #4; October 2006.

Data Validation: Bradley B. LaForest, NRCC-EAC



Date: 3/23/11

Reviewed by Chris Ricardi, NRCC-EAC



Date: 4/7/11

**TABLE 1**  
**DATA USABILITY SUMMARY REPORT**  
**JANUARY 2011 INDOOR AIR AND SUB-SLAB VAPOR SAMPLING**  
**FORMER HONEYWELL SITE**  
**HOOSICK FALLS, NEW YORK**

SDG	Sample ID	Lab ID	Sample Date	Sample Type	Method
200-3615	MS-IA-01-2	200-3615-1	1/26/2011	REG	TO-15
200-3615	MS-IA-02-2	200-3615-2	1/26/2011	REG	TO-15
200-3615	MS-IA-03-2	200-3615-3	1/26/2011	REG	TO-15
200-3615	MS-IA-04-2	200-3615-4	1/26/2011	REG	TO-15
200-3615	MS-IA-05-2	200-3615-5	1/26/2011	REG	TO-15
200-3615	MS-AA-01-2	200-3615-6	1/26/2011	REG	TO-15
200-3615	MS-SS-01-2	200-3615-7	1/26/2011	REG	TO-15
200-3615	MS-SS-02-2	200-3615-8	1/26/2011	REG	TO-15
200-3615	MS-SS-03-2	200-3615-9	1/26/2011	REG	TO-15
200-3615	MS-SS-04-2	200-3615-10	1/26/2011	REG	TO-15
200-3615	MS-SS-05-2	200-3615-11	1/26/2011	REG	TO-15
200-3615	MS-SS-06-2	200-3615-12	1/26/2011	REG	TO-15
200-3615	MS-SS-06-2-D	200-3615-13	1/26/2011	FD	TO-15

TABLE 2  
DATA USABILITY SUMMARY REPORT  
JANUARY 2011 INDOOR AIR AND SUB-SLAB VAPOR SAMPLING (µg/m3)  
FORMER HONEYWELL SITE  
HOOSICK FALLS, NEW YORK

Field Sample ID Location Sample Date			MS-AA-01-2 AA-01-2 1/26/2011	MS-IA-01-2 IA-01-2 1/26/2011	MS-IA-02-2 IA-02-2 1/26/2011	MS-IA-03-2 IA-03-2 1/26/2011	MS-IA-04-2 IA-04-2 1/26/2011	MS-IA-05-2 IA-05-2 1/26/2011	MS-SS-01-2 SS-01-2 1/26/2011
Units	Method	Parameter Name							
ug/m3	TO15	1,1,1-Trichloroethane	0.27 U	0.27 U	2.7 U	0.27 U	0.27 U	0.55 U	0.31 J
ug/m3	TO15	1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	3.4 U	0.34 U	0.34 U	0.69 U	0.34 U
ug/m3	TO15	1,1,2-Trichloroethane	0.27 U	0.27 U	2.7 U	0.27 U	0.27 U	0.55 U	0.27 U
ug/m3	TO15	1,1-Dichloroethane	0.053 U	0.053 U	0.53 U	0.053 U	0.053 U	0.11 U	0.053 U
ug/m3	TO15	1,1-Dichloroethene	0.059 U	0.059 U	0.59 U	0.059 U	0.059 U	0.12 U	0.059 U
ug/m3	TO15	1,2-Dibromoethane	0.092 U	0.092 U	0.92 U	0.092 U	0.092 U	0.18 U	0.092 U
ug/m3	TO15	1,2-Dichloroethane	0.061 U	0.061 U	0.61 U	0.061 U	0.061 U	0.12 U	0.061 U
ug/m3	TO15	1,2-Dichloroethene, Total	0.4 U	0.4 U	4 U	0.4 U	0.4 U	0.79 U	0.4 U
ug/m3	TO15	1,2-Dichloropropane	0.074 U	0.074 U	0.74 U	0.074 U	0.074 U	0.15 U	0.074 U
ug/m3	TO15	1,2-Dichlorotetrafluoroethane	0.084 U	0.084 U	0.84 U	0.084 U	0.084 U	0.17 U	0.084 U
ug/m3	TO15	1,3,5-Trimethylbenzene	0.31 U	0.31 U	3.1 U	0.31 U	0.31 U	0.63 U	1.2
ug/m3	TO15	1,3-Butadiene	0.06 U	0.06 U	0.6 U	0.14 J	0.06 U	0.12 U	0.06 U
ug/m3	TO15	2,2,4-Trimethylpentane	0.061 U	0.061 U	0.61 U	0.061 U	0.061 U	0.12 U	0.061 U
ug/m3	TO15	3-Chloropropene	0.091 U	0.091 U	0.91 U	0.091 U	0.091 U	0.18 U	0.091 U
ug/m3	TO15	4-Ethyltoluene	0.31 U	0.31 U	3.1 U	0.31 U	0.31 U	0.63 U	0.43 J
ug/m3	TO15	Benzene	2.2	4.4	1000	8.5	4.3	0.75 J	0.26 J
ug/m3	TO15	Bromodichloromethane	0.34 U	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.34 U
ug/m3	TO15	Bromoethene(Vinyl Bromide)	0.22 U	0.22 U	2.2 U	0.22 U	0.22 U	0.44 U	0.22 U
ug/m3	TO15	Bromoform	0.52 U	0.52 U	5.2 U	0.52 U	0.52 U	1 U	0.52 U
ug/m3	TO15	Bromomethane	0.054 U	0.054 U	0.54 U	0.054 U	0.054 U	0.11 U	0.054 U
ug/m3	TO15	Carbon tetrachloride	0.46 J	0.49 J	3.1 U	0.52 J	0.69 J	0.63 U	0.49 J
ug/m3	TO15	Chloroethane	0.26 U	0.26 U	2.6 U	0.26 U	0.26 U	0.53 U	0.26 U
ug/m3	TO15	Chloroform	0.24 U	0.24 U	2.4 U	0.24 U	0.33 J	0.49 U	0.24 U
ug/m3	TO15	cis-1,2-Dichloroethene	0.2 U	0.2 U	2 U	0.2 U	0.2 U	0.4 U	0.2 U
ug/m3	TO15	cis-1,3-Dichloropropene	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	0.45 U	0.23 U
ug/m3	TO15	Cyclohexane	0.32 J	0.29 J	32	1.9	0.041 U	0.083 U	0.041 U
ug/m3	TO15	Dibromochloromethane	0.43 U	0.43 U	4.3 U	0.43 U	0.43 U	0.85 U	0.43 U
ug/m3	TO15	Dichlorodifluoromethane	2.7	2.7	0.59 U	2.9	3.1	3 J	3.1
ug/m3	TO15	Ethylbenzene	0.18 J	0.29 J	0.61 U	0.7 J	0.25 J	0.12 U	0.64 J
ug/m3	TO15	m,p-Xylene	0.38 J	0.81 J	1 U	2.1 J	0.59 J	0.2 U	2.9
ug/m3	TO15	Methyl tert-butyl ether	0.047 U	0.047 U	0.47 U	0.047 U	0.047 U	0.094 U	0.047 U

**TABLE 2**  
**DATA USABILITY SUMMARY REPORT**  
**JANUARY 2011 INDOOR AIR AND SUB-SLAB VAPOR SAMPLING (µg/m3)**  
**FORMER HONEYWELL SITE**  
**HOOSICK FALLS, NEW YORK**

Field Sample ID Location Sample Date			MS-AA-01-2 AA-01-2 1/26/2011	MS-IA-01-2 IA-01-2 1/26/2011	MS-IA-02-2 IA-02-2 1/26/2011	MS-IA-03-2 IA-03-2 1/26/2011	MS-IA-04-2 IA-04-2 1/26/2011	MS-IA-05-2 IA-05-2 1/26/2011	MS-SS-01-2 SS-01-2 1/26/2011
Units	Method	Parameter Name							
ug/m3	TO15	Methylene Chloride	0.84 J	0.58 J	4.3 J	1.3 J	2	4.2	1.7 U
ug/m3	TO15	n-Heptane	0.29 J	0.51 J	1.1 U	0.73 J	0.52 J	0.22 U	0.27 J
ug/m3	TO15	n-Hexane	0.49 J	0.56 J	0.81 U	1.2	2	0.16 U	0.18 J
ug/m3	TO15	Tetrachloroethene	0.12 U	0.36 J	1.2 U	0.64 J	0.12 U	0.23 U	0.4 J
ug/m3	TO15	Toluene	1.6	31	110	66	6.8	0.44 J	2.3
ug/m3	TO15	trans-1,2-Dichloroethene	0.2 U	0.2 U	2 U	0.2 U	0.2 U	0.4 U	0.2 U
ug/m3	TO15	trans-1,3-Dichloropropene	0.29 U	0.29 U	2.9 U	0.29 U	0.29 U	0.58 U	0.29 U
ug/m3	TO15	Trichloroethene	0.075 U	0.075 U	0.75 U	0.075 U	0.075 U	0.15 U	4.8
ug/m3	TO15	Trichlorofluoromethane	1.3	1.4	2.8 U	1.4	1.5	1.4 J	1.6
ug/m3	TO15	Vinyl chloride	0.064 U	0.064 U	0.64 U	0.064 U	0.064 U	0.13 U	0.064 U
ug/m3	TO15	Xylene (total)	0.65 U	1.1	6.5 U	2.8	0.78 J	1.3 U	3.9
ug/m3	TO15	Xylene, o-	0.22 U	0.28 J	2.2 U	0.7 J	0.22 U	0.43 U	1

**TABLE 2**  
**DATA USABILITY SUMMARY REPORT**  
**JANUARY 2011 INDOOR AIR AND SUB-SLAB VAPOR SAMPLING (µg/m3)**  
**FORMER HONEYWELL SITE**  
**HOOSICK FALLS, NEW YORK**

Field Sample ID Location Sample Date			MS-SS-02-2 SS-02-2 1/26/2011	MS-SS-03-2 SS-03-2 1/26/2011	MS-SS-04-2 SS-04-2 1/26/2011	MS-SS-05-2 SS-05-2 1/26/2011	MS-SS-06-2 SS-06-2 1/26/2011	MS-SS-06-2-D SS-06-2 1/26/2011
Units	Method	Parameter Name						
ug/m3	TO15	1,1,1-Trichloroethane	0.3 J	3	0.44 U	2.5 U	4.1	4.1
ug/m3	TO15	1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.55 U	3.1 U	0.34 U	0.34 U
ug/m3	TO15	1,1,2-Trichloroethane	0.27 U	0.27 U	0.44 U	2.5 U	0.27 U	0.27 U
ug/m3	TO15	1,1-Dichloroethane	0.053 U	0.053 U	0.084 U	0.48 U	0.053 U	0.053 U
ug/m3	TO15	1,1-Dichloroethene	0.059 U	0.059 U	0.095 U	0.54 U	0.059 U	0.059 U
ug/m3	TO15	1,2-Dibromoethane	0.092 U	0.092 U	0.15 U	0.84 U	0.092 U	0.092 U
ug/m3	TO15	1,2-Dichloroethane	0.061 U	0.061 U	0.097 U	0.55 U	0.061 U	0.061 U
ug/m3	TO15	1,2-Dichloroethene, Total	0.4 U	0.4 U	0.63 U	23	0.4 U	0.4 U
ug/m3	TO15	1,2-Dichloropropane	0.074 U	0.074 U	0.12 U	0.67 U	0.074 U	0.074 U
ug/m3	TO15	1,2-Dichlorotetrafluoroethane	0.084 U	0.084 U	0.13 U	0.76 U	0.084 U	0.084 U
ug/m3	TO15	1,3,5-Trimethylbenzene	1.2	0.51 J	4.4	2.9 U	0.79 J	0.85 J
ug/m3	TO15	1,3-Butadiene	0.06 U	0.06 U	0.096 U	0.54 U	0.06 U	0.06 U
ug/m3	TO15	2,2,4-Trimethylpentane	0.061 U	0.061 U	0.097 U	0.55 U	0.061 U	0.061 U
ug/m3	TO15	3-Chloropropene	0.091 U	0.091 U	0.15 U	0.83 U	0.091 U	0.091 U
ug/m3	TO15	4-Ethyltoluene	1.3	0.31 U	2.3	2.9 U	0.64 J	0.51 J
ug/m3	TO15	Benzene	1.1	1.7	1 J	1.5 U	0.74	0.75
ug/m3	TO15	Bromodichloromethane	0.34 U	0.34 U	0.54 U	3 U	0.34 U	0.34 U
ug/m3	TO15	Bromoethene(Vinyl Bromide)	0.22 U	0.22 U	0.35 U	2 U	0.22 U	0.22 U
ug/m3	TO15	Bromoform	0.52 U	0.52 U	0.83 U	4.7 U	0.52 U	0.52 U
ug/m3	TO15	Bromomethane	0.054 U	0.054 U	0.087 U	0.49 U	0.054 U	0.054 U
ug/m3	TO15	Carbon tetrachloride	0.39 J	0.31 U	0.5 U	2.9 U	0.4 J	0.39 J
ug/m3	TO15	Chloroethane	0.26 U	0.26 U	0.42 U	2.4 U	0.26 U	0.26 U
ug/m3	TO15	Chloroform	0.78 J	3.1	0.39 U	4.4 J	0.24 U	0.24 U
ug/m3	TO15	cis-1,2-Dichloroethene	0.2 U	0.2 U	0.32 U	23	0.2 U	0.2 U
ug/m3	TO15	cis-1,3-Dichloropropene	0.23 U	0.23 U	0.36 U	2.1 U	0.23 U	0.23 U
ug/m3	TO15	Cyclohexane	0.041 U	0.21 J	0.88 J	0.38 U	0.041 U	0.19 J
ug/m3	TO15	Dibromochloromethane	0.43 U	0.43 U	0.68 U	3.9 U	0.43 U	0.43 U
ug/m3	TO15	Dichlorodifluoromethane	2.9	10	4.1	0.54 U	14	14
ug/m3	TO15	Ethylbenzene	3.5	0.49 J	13	3.1 J	3.7	3.6
ug/m3	TO15	m,p-Xylene	12	1.8 J	38	13 J	12	12
ug/m3	TO15	Methyl tert-butyl ether	0.047 U	0.047 U	0.075 U	0.43 U	0.047 U	0.047 U



**TABLE 2**  
**DATA USABILITY SUMMARY REPORT**  
**JANUARY 2011 INDOOR AIR AND SUB-SLAB VAPOR SAMPLING (µg/m3)**  
**FORMER HONEYWELL SITE**  
**HOOSICK FALLS, NEW YORK**

Field Sample ID Location Sample Date			MS-SS-02-2 SS-02-2 1/26/2011	MS-SS-03-2 SS-03-2 1/26/2011	MS-SS-04-2 SS-04-2 1/26/2011	MS-SS-05-2 SS-05-2 1/26/2011	MS-SS-06-2 SS-06-2 1/26/2011	MS-SS-06-2-D SS-06-2 1/26/2011
Units	Method	Parameter Name						
ug/m3	TO15	Methylene Chloride	1.7 U	1.7 U	24	16 U	1.7 U	1.7 U
ug/m3	TO15	n-Heptane	0.28 J	0.38 J	1 J	5.7 J	0.25 J	0.36 J
ug/m3	TO15	n-Hexane	0.42 J	0.3 J	0.92 J	1.3 J	0.15 J	0.25 J
ug/m3	TO15	Tetrachloroethene	0.59 J	0.63 J	1.4 J	21	1.9	1.9
ug/m3	TO15	Toluene	2.6	11	8.4	8.8	5.4	5.5
ug/m3	TO15	trans-1,2-Dichloroethene	0.2 U	0.2 U	0.32 U	1.8 U	0.2 U	0.2 U
ug/m3	TO15	trans-1,3-Dichloropropene	0.29 U	0.29 U	0.46 U	2.6 U	0.29 U	0.29 U
ug/m3	TO15	Trichloroethene	52	130	230	1100	80	77
ug/m3	TO15	Trichlorofluoromethane	1.5	1.5	1.6 J	2.6 U	1.4	1.4
ug/m3	TO15	Vinyl chloride	0.064 U	0.064 U	0.1 U	0.58 U	0.064 U	0.064 U
ug/m3	TO15	Xylene (total)	14	2.4	47	17	15	15
ug/m3	TO15	Xylene, o-	2.5	0.56 J	8.3	3.9 J	3.1	3

**TABLE 3**  
**DATA USABILITY SUMMARY REPORT**  
**JANUARY 2011 INDOOR AIR AND SUB-SLAB SAMPLING**  
**FORMER HONEYWELL SITE**  
**HOOSICK FALLS, NEW YORK**

SDG	Lab ID	Method	Field Sample Id	Parameter Name	Lab Result	Lab Qualifier	Validated Result	Validation Qualifier	Reason Codes	Units
200-3615	200-3615-7	TO15	MS-SS-01-2	Methylene Chloride	0.55	J B	1.7	U	BL1	ug/m3
200-3615	200-3615-8	TO15	MS-SS-02-2	Methylene Chloride	0.56	J B	1.7	U	BL1	ug/m3
200-3615	200-3615-9	TO15	MS-SS-03-2	Methylene Chloride	0.86	J B	1.7	U	BL1	ug/m3
200-3615	200-3615-11	TO15	MS-SS-05-2	Methylene Chloride	0.91	J B	16	U	BL1	ug/m3
200-3615	200-3615-12	TO15	MS-SS-06-2	Methylene Chloride	0.81	J B	1.7	U	BL1	ug/m3
200-3615	200-3615-13	TO15	MS-SS-06-2-D	Methylene Chloride	0.88	J B	1.7	U	BL1	ug/m3

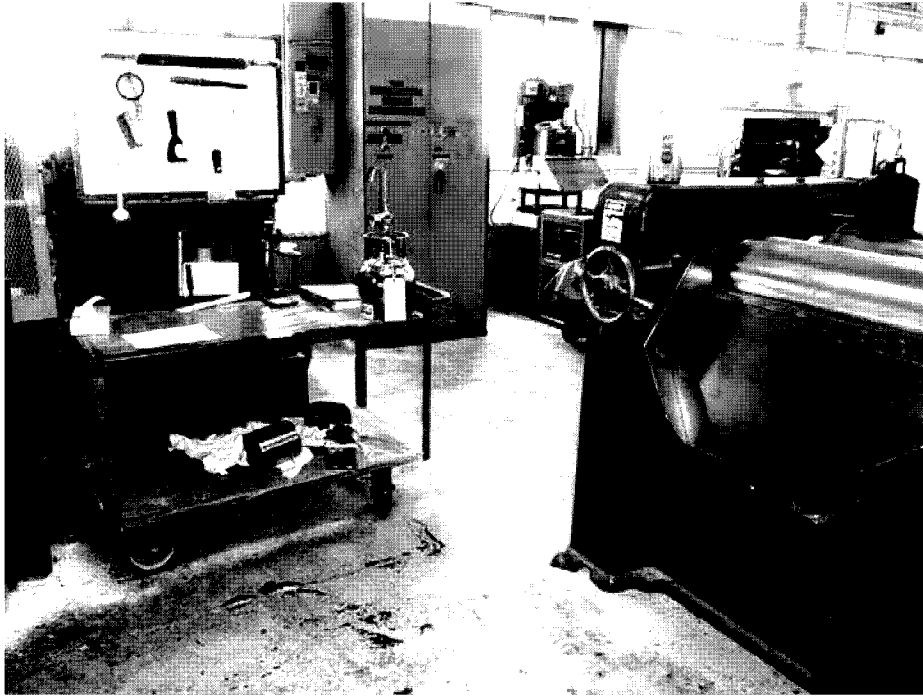
**ATTACHMENT D**  
**JANUARY 2011 PHOTOGRAPHS**



McCaffrey Street indoor air sample IA-01 in the breakroom.



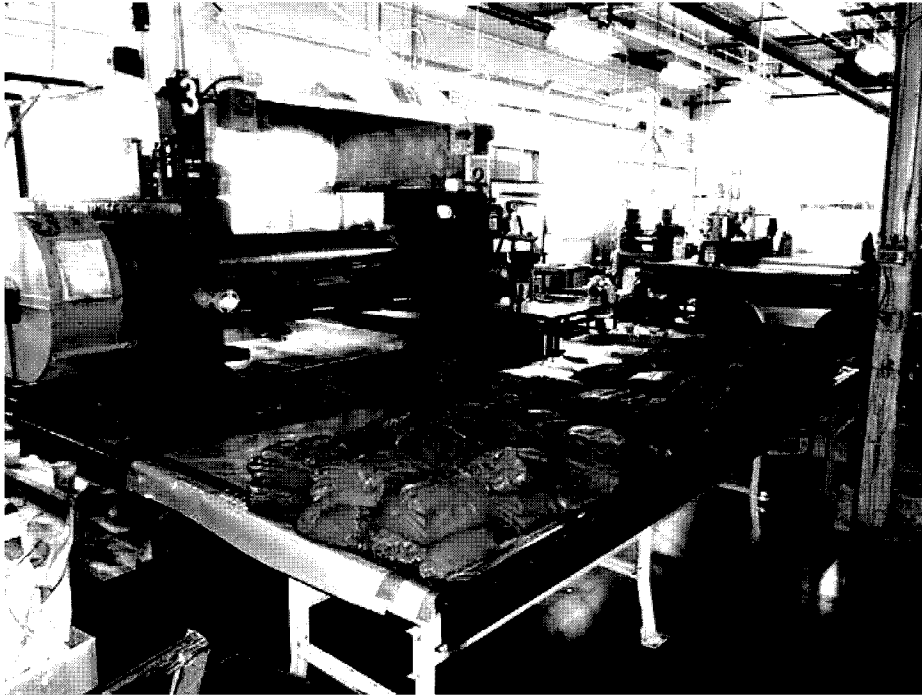
McCaffrey Street indoor air sample IA-03 in the QA Laboratory.



McCaffrey Street indoor air sample IA-04 in the production area.



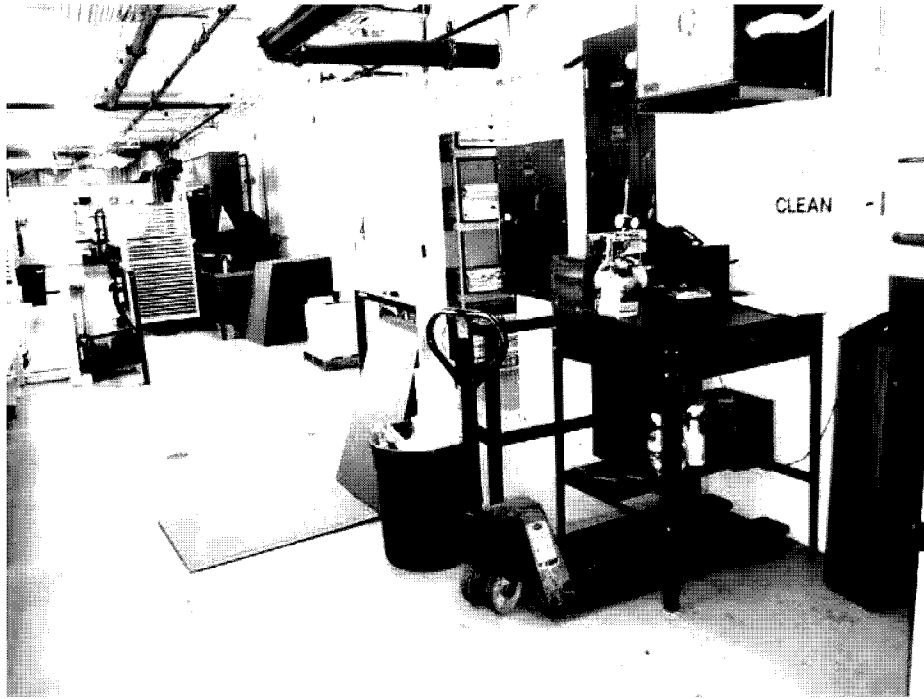
McCaffrey Street production area.



McCaffrey Street additional view of the production area.



McCaffrey Street chemicals in production area.



McCaffrey Street indoor air sample IA-05 in the former machine shop.



McCaffrey Street sub-slab sample SS-01 in the breakroom.



McCaffrey Street sub-slab sample SS-02 in the hallway.



McCaffrey Street finished sub-slab vapor point completion at SS-02.





McCaffrey Street sub-slab soil vapor sample SS-03 in hallway.



McCaffrey Street finished sub-slab vapor point completion at SS-03.



McCaffrey Street sub-slab soil vapor sample SS-04 in production area.



McCaffrey Street sub-slab soil vapor sample SS-05 in the former machine shop.